African Deparment

Monitoring and Managing Fiscal Risks in the East African Community

IMF staff team led by Paolo Mauro and Hervé Joly



INTERNATIONAL MONETARY FUND

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Cataloging-in-Publication Data

Monitoring and Managing Fiscal Risks in the East African Community/prepared by Paolo Mauro ... [et al.]. – Washington, D.C. : International Monetary Fund, 2015. pages ; cm – (African departmental paper)

"Approved by the African Department." Includes bibliographical references.

 East African Community. 2. East African Monetary Union 3. Fiscal risks
Mauro, Paolo II. International Monetary Fund. III. International Monetary Fund. African Department. IV. Title: Monitoring and Managing Fiscal Risks in the East African Community. V. African departmental paper.

ISBN: 978-1-51355-1-265 (paper) ISBN: 978-1-51350-4-650 (Web PDF)

The African Departmental Paper Series presents research by IMF staff on issues of broad regional or cross-country interest. The views expressed in this paper are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

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Overview

Monitoring and managing fiscal risks—defined as the possibility of deviations of fiscal outcomes from what was expected at the time of the budget or other forecast—are always key aspects of policymaking. Their importance in the East African Community (EAC, consisting of Burundi, Kenya, Rwanda, Tanzania and Uganda) is reinforced by the drive toward the East African Monetary Union (EAMU).¹ Indeed, fiscal risks are unlikely to be fully captured by headline fiscal indicators—such as the deficit and debt of the government—that will serve as convergence criteria for the EAMU.

Common sources of fiscal risks include natural disasters or shocks to such macroeconomic variables as exchange rates and interest rates, but also the fiscal implications of bail-outs of banks, public enterprises, pension funds, and local governments, or other contingent liabilities, such as guarantees (including those embedded in public-private partnerships) and legal claims against the government. In addition, accuracy and transparency of the central government's fiscal accounts reduce the likelihood that debts and deficits will be unexpectedly revised upward at a later stage. Indeed, lack of accurate information can be a source of risks.²

The euro area experience shows that fiscal problems in individual member countries may cause spillovers to other member countries and the monetary union as a whole. The same experience also reveals that fiscal vulnerabilities were not sufficiently captured by the headline deficit numbers tracked by the European institutions. Adverse fiscal surprises came from various sources. For Greece, the general government deficit turned out to be incompletely captured in the initially released official statistics (Figure 1). For Portugal, loss-making public enterprises and the realization of government guarantees on public-private partnerships (PPPs) imposed a heavy fiscal cost for the government (Figure 2). For Spain, and especially Ireland, problems in the banking system resulted in major fiscal consequences. In the EAC, recent history shows that debt accumulation can be faster than expected, too (Figure 3).

¹ The Protocol for EAMU was signed in November 2013 by the EAC heads of state.

http://www.eac.int/legal/index.php?option=com_docman&task=doc_download&gid=204&Itemid=47). ² See IMF (2012).





Sources: Authorities; and IMF staff projections.





Sources: Authorities. Note: SOE = state-owned enterprises; PPP = private-public partnership.

Figure 3. EAC Debt Ratio Projected for 2014: Latest Debt Sustainability Analysis versus Five Years Ago

(percent of GDP)



Policymakers have paid increasing attention to the topic of fiscal risks, with a trend toward greater disclosure through statements of fiscal risks or other budgetary documents that several countries submit to parliament. In the EAC, Kenya has recently started producing a statement of fiscal risks in conformity with the Public Finance Management Act 2012, though the statement's content could be enhanced significantly by including additional quantitative information on several risks. In Uganda, the 2015 Public Financial Management Act requires that a statement of fiscal risks be included in the National Budget Framework Papers. Such statement should list the main sources of risk to the fiscal objectives of government, quantify the impact of those risks, and provide an alternative fiscal framework based on more realistic assumptions of the key macroeconomic variables. Guidelines for the disclosure and management of fiscal risks have been discussed by the IMF's Executive Board.³ The topic has also been given special attention in recent interactions between the IMF and the national and regional authorities, in the context of program work, surveillance, and technical assistance.⁴

This paper takes stock of the main fiscal risks facing the EAC partner countries. These include macroeconomic shocks (Chapter 1) and specific risks, such as the financial performance of the public enterprises, large infrastructure projects, PPPs, and pension funds (Chapter 2). In addition, weaknesses in the institutional framework are reviewed (Chapter 3). The last section concludes the paper. The objective was not to be fully comprehensive, as other significant sources of shocks (such as natural disasters and possible declines in foreign aid) are not analyzed;⁵ rather, it was to highlight some of the largest risks and to begin to give a sense of the potential magnitudes involved.

³ See IMF (2008).

⁴ Recent IMF technical assistance to EAC countries provided a detailed proposal for the design of a statement of fiscal risks and modalities for the surveillance, monitoring, and enforcement of fiscal variables and criteria in the context of convergence to EAMU. The outline currently under discussion for medium-term convergence programs includes a sensitivity analysis of key risks and the impact of changes in the main economic assumptions on the budgetary and debt position.

⁵ Natural disasters, such as droughts, may be partly captured in debt sustainability analyses (DSAs) to the extent that they are recurrent and affect historical economic performance. DSAs may also reflect in their baseline, to various extents, the decline of aid to GDP observed in certain countries (for example, Tanzania). Aid is also volatile, as amply shown in the literature, which in itself also raises fiscal management challenges and risks.



Macroeconomic Shocks

The most recent public debt sustainability analysis (DSA) conducted by IMF and World Bank staff suggests that, in the baseline scenario, the public debt (in present value terms) would remain below the 50 percent of GDP ceiling established by the EAMU convergence criterion for all EAC countries by 2021 (the first year when EAMU criteria will be assessed).⁶ These favorable debt dynamics are based upon the assumptions of sustained high economic growth, relatively low interest rates, and moderate fiscal deficits. However, the region could well be affected by macroeconomic shocks. This is in spite of EAC partner states' macroeconomic and growth performance over the past decade, which has been—and is expected to continue to be—impressive, according to most analysts.

This section explores possible shocks to the key underlying macroeconomic assumptions, using two approaches. The first approach ("alternative scenarios") is to compute the implications of discrete changes in the main macroeconomic assumptions (economic growth, interest rates, and the exchange rate) one at a time and then all at the same time. Past experience in the region informs the size of these shocks. This first approach is essentially the same as the standard alternative scenarios in the IMF's debt sustainability exercise, but in this case the shocks are set to be the same for all EAC partner states in order to report the results on a consistent basis. The second approach ("complete probability distribution of shocks") is to estimate a full distribution of shocks to the main macroeconomic variables, using past data for the region, and then use such distribution to simulate thousands of possible paths for all the main macroeconomic variables; the results of this second approach are summarized through so-called fan charts, which make it relatively easy to see what percentage of the possible paths breach (or come close to breaching) specific thresholds, such as those set by the EAMU Protocol. By showing what would happen in the event of macroeconomic shocks in the absence of a policy response, both exercises are designed to inform policymakers.⁷

⁶ Convergence criteria will also need to be observed beyond 2021. The 50-percent ceiling is below the total public debt benchmark for medium policy and institutional performance (56 percent) in the debt sustainability framework of the IMF and World Bank.

⁷ More precisely, changes in the fiscal deficit are exactly those implied by lower revenues as a result of lower growth, and higher expenditures as a result of higher interest rates, assuming policymakers do not change tax or expenditure policies in response.

A. Alternative Scenarios

In this first approach, the impact on the public debt-to-GDP ratio in 2021—in both nominal and present-value (PV) terms—is simulated in response to the following shocks: (1) 2 percent lower real growth than in the baseline scenario; (2) 350 basis points higher nominal interest rates on domestic public debt; (3) 200 basis points higher nominal interest rates on external public debt; and (4) 4 percent more depreciation of the nominal exchange rate of the domestic currency vis-à-vis the U.S. dollar each year (that is, 28 percent cumulatively over 2014–21).⁸ As an extreme case, a combined shock of (1) to (4) is also considered. This approach isolates the impact of well-specified, individual shocks by computing the impact of each of the shocks, assuming that the other key assumptions remain as in the baseline scenario. This is, of course, a crude approach, as it does not take into account any possible policy reaction to the shock or the fact that the shock itself could have implications—negative or positive—for other variables. The results are summarized in Table 1.

Changes in the key macroeconomic variables compared with the baseline projections could cause the public debt-to-GDP to come close to or exceed the EAMU threshold of 50 percent of GDP, especially when all adverse shocks occur simultaneously (combined adverse shock scenario). In the simulations, the shocks with the largest impact individually are a slowdown in real GDP growth and an exchange-rate depreciation.

While this first approach provides clear estimates of the impact of individual shocks, it does not incorporate information on the likelihood that these shocks would occur simultaneously or affect each other. To do so, it is necessary to analyze the whole distribution of macroeconomic shocks.

B. Complete Probability Distribution of Shocks

In this second approach, past data are used to estimate not only the volatility of each key macroeconomic variable (growth, interest rates, exchange rate) but also the correlations among them (variance-covariance matrix), to take into consideration the extent to which shocks to one variable are associated with shocks to the others. Specifically, pooled quarterly data for 1993–2013 (subject to availability) for the EAC countries are used to estimate the variance-covariance matrix for these variables (reported in Appendix I, Tables 1–2).⁹ Thousands of future paths are then generated by random draws of each of the variables

⁸ The size of these shocks for each of the variables considered is approximately equivalent to one standard deviation (economic growth, domestic interest rates, foreign interest rates) or half a standard deviation (nominal exchange rate) of the distribution of such variables for the pooled sample of EAC partner states at the annual frequency over the period 2004–13. In this simple framework, an exchange-rate depreciation is a negative shock, as it makes foreign-currency denominated debt more expensive to service. It ignores the important role of the exchange rate in adjusting to shocks and restoring competitiveness.

⁹ Fan charts using individual countries' standard deviations and covariance matrices are shown in Appendix II.

from the estimated joint normal distribution to represent shocks, whose implications are then traced starting from the baseline projections. The fan charts reported in Figure 1.1 represent the distributions of projected debt paths for each EAC partner state.

Table 1.1. EAC: Sensitivity Analysis for Key In	dicators o	f Publ	ic Debt,	2021 ¹	
	Burundi	Kenya	Rwanda	Tanzania	Uganda
PV of Debt-to-GDP Rat	io				
Baseline	17	36	18	33	30
A. Alternative scenarios					
A1. Real GDP growth slows by 2.0 percent each year	29	56	33	48	45
A2. Interest rates on domestic debt are 350 basis points higher	19	41	19	35	33
A3. Interest rates on foreign debt are 200 basis points higher	18	38	21	37	33
A4. Exchange rate depreciates by 4 percent more each year	20	38	23	38	33
A5. Combined A1-A4	39	71	44	65	59
Debt-to-GDP Ratio					
Baseline	19	41	28	44	38
A. Alternative scenarios					
A1. Real GDP growth slows by 2.0 percent each year	32	62	44	61	55
A2. Interest rates on domestic debt are 350 basis points higher	22	46	29	47	41
A3. Interest rates on foreign debt are 200 basis points higher	21	43	31	48	41
A4. Exchange rate depreciates by 4 percent more each year	23	46	38	54	45
A5. Combined A1-A4	44	79	60	83	73
Baseline assumptions: averages for 2015–21					
Real growth	5.3	6.9	7.4	7.0	7.1
Interest rate on domestic debt	7.3	9.1	0.5	7.0	11.0
Interest rate on external debt	1.1	2.4	2.0	2.2	2.2
Annual nominal depreciation (+)	2.5	0.3	3.0	2.7	3.6

Sources: Country authorities; and IMF staff calculations and projections.

¹ The baselines correspond to DSAs conducted in 2014, which did not necessarily reflect the recent re-basing in national accounts in the region.



standard error interval around the median projection. The outer edge of the dark pink cone marks the 99-percent confidence interval.

Sources: EAC authorities; and IMF staff estimates.

Based on this approach, macroeconomic shocks alone seem unlikely to push the present value of government debt as a share of GDP of all EAC partner states beyond the 50-percent threshold in the early 2020s. The probability exceeds 5 percent only in Kenya and Tanzania; it is less than 1 percent in Burundi, Rwanda, and Uganda.

Based on these exercises, macroeconomic shocks are potentially a significant source of fiscal risks; however, given the relatively low public-debt ratios from which EAC partner states are starting and the relatively benign baseline scenarios, such shocks themselves do not cause a high likelihood of a breach of the EAMU debt threshold in 2021. It is important to recall, though, that there are several others sources of risk, some of which are analyzed in the next sections. Moreover, some of these additional risk sources are positively correlated with adverse macroeconomic shocks. For example, low economic growth is correlated with weaker financial performance of public enterprises, likely engendering the need for the central government to provide additional fiscal support.

Specific Risks

A. Public Enterprises

Historically, public enterprises have played an important role in the economies of EAC partner states.¹⁰ The quality, timeliness, and coverage of information on the scale and financial performance of the public enterprises, both individually and in aggregate, needs to improve; however, available information makes clear that public enterprises are sufficiently important to pose significant fiscal risks—most require fiscal transfers and there have been many cases of bail-outs—and that the information gaps tend to heighten such risks. Lack of consolidated data covering the full public sector, including public enterprises, can prevent proper monitoring and risk management. Indeed, strengthened monitoring and oversight would help to keep risks in check.

Scale and Economic Sectors

Despite major privatization waves during the past two decades, public enterprises still account for a large share of both output and employment in the EAC. Information on the overall scale of the public-enterprise sector in the various EAC partner states is not always available in a consistent and comprehensive manner. Based on available data gathered from the authorities,¹¹ public enterprises account for almost 10 percent of turnover in the economy (formal private sector and public enterprises) in Kenya and Tanzania, and almost 1.5 percent of total employment in Kenya (Table 2.1.1).

¹⁰ This paper follows the definition of public enterprises by the United Nations system as "any commercial undertaking owned by public authority, either wholly or through majority shareholding, which is engaged in the sale of goods and services and whose affairs are capable of being recorded in balance sheets and profit and loss accounts." This definition excludes departmental agencies, commissions, and nonprofit public agencies. It is similar to that used in the *Kenyan Report of the Presidential Taskforce on Parastatal Reforms*, except that the Kenya report also distinguishes between commercially operated enterprises and those that have a strategic function and are not required to make profits.

¹¹In the case of Kenya, it uses the October 2013 *Kenyan Report of the Presidential Taskforce on Parastatal Reforms*.

Public enterprises operate in a wide range of sectors in the region, with significant similarities across countries. Most are active in transportation (aviation and railway authorities); environment (conservation and water authorities); energy (oil companies and electricity—the latter split between generation, transmission, and distribution services in Kenya and Uganda, whereas these services are offered by a single company in Rwanda and Tanzania); communications (printing, broadcasting and entertainment, and postal system); agriculture (seed, fertilizer, and genetics companies); and finance. The two countries with direct access to the sea, Kenya and Tanzania, own port authorities. Uganda has an important national forest authority.

Financial Performance

Collectively, public enterprises in the region pose macroeconomically relevant fiscal risks. They periodically require sizable transfers from the central government to cover losses. There is, however, considerable variation among the public enterprises with respect to financial performance. Some are chronic loss-makers; others' performance is subject to significant variation, depending on commodity prices, weather conditions, and so forth; and some public enterprises reliably generate profits. This last group should not be overlooked from the perspective of fiscal risks: it is important to ensure that public enterprises operating in favorable conditions make adequate profits and that they remit profits to the treasury through taxes and dividends. Indeed, a significant source of fiscal risks relates to public enterprises that fail to generate adequate profits despite having a privileged position (monopoly, control of natural resources, and so forth) or that fail to remit profits to the treasury. As natural resources gain importance, the financial situation of public enterprises involved in the sector will merit even further disclosure of information and appropriate management.

In Tanzania and Uganda, the aggregate profit and loss account (after transfers) of the public enterprises has been broadly in balance, excluding the losses incurred by the national electricity companies (Table 2.1). In Kenya, the fiscal position has been the reverse, with the national electricity company generating profits and sizable losses for the public-enterprise sector outside electricity. In Rwanda, the budget position for utilities was in balance, with a slight aggregate deficit for the other public enterprises. In Burundi, the electricity company made profits in the most recent year for which information is available (2012) but remains in a weak position, with ongoing support from the World Bank; information for the rest of the public-enterprise sector suggests a small aggregate surplus, though there is no data on the extent of public subsidies received by public enterprises. Box 2.1 provides further information on the financial position (net income) of public enterprises in individual countries.

Box 2.1. Available Information on Financial Position of Public Enterprises in EAC Partner States

Consistency of information on the financial position of public enterprises is difficult to ensure: therefore this box focuses on only a few indicators that can be compared across countries. These include the level of employment and the financial position of the public-enterprise sector as a whole (including and excluding utilities). In general, public-enterprise employees represent between 1 and 3 percent of the total number of employees, with the high number in Rwanda probably a reflection of better data.

Public enterprises have generally been making losses, with only Uganda and Burundi showing a positive aggregate balance (in 2010/11). Public utilities tend to make significant losses (for example, 0.7 percent of GDP in Kenya and 1.6 percent of GDP in Uganda). These losses materialize despite public subsidies. For country specifics, see the following:

Burundi. Following years of losses, the Burundi water and electricity company made a slight profit after tax of \$2.4 million in 2012 (0.1 percent of GDP), following increases in water and electricity tariffs in September 2011 and March 2012. Small profits are projected through 2018.

Kenya. Transfers to public enterprises were equivalent to 5 percent of GDP between 2005 and 2010. In FY2011/12, 11 state corporations made losses.

Rwanda. Transfers to parastatals amounted to slightly less than 1 percent of GDP per year over the past five years. Rwandair, the national airline, continues to make losses after these transfers.

Tanzania. The public enterprises had aggregate net income close to balance in FY2012/13, but this masks wide differences among individual majority and wholly owned public enterprises, as well as large government subventions paid to some parastatals. Particularly strong financial performances have been reported by the National Housing Corporation and the Tanzania Ports Authority, which in recent years have generated significant financial surpluses and have not relied on government financial support. On the other end of the spectrum, the largest losses have been incurred by power utility TANESCO. Other public enterprises incurring large financial losses include Air Tanzania, water utilities, Tanzania Broadcasting Corporation Tanzania Telecommunication Corporation Limited (a joint venture with Airtel), the Tanzania-Zambia Railways Authority (jointly owned by the two governments), and public universities and colleges.

Uganda. Except for the electricity sector, subsidies to parastatals have decreased considerably in recent years to about 0.4 percent of GDP. The main loss-making public enterprise in Uganda is the telecom company, which made losses of more than 0.3 percent of GDP in FY2010/11 (most recent data point).

	Number of	Public enterprise employm	Public enterprise employment		Financial position in 12/13	
	companies	(percent of total employment)	ent) 1,000s (in percent of GDP)		(in percent of GDP)	
				Total	Total (excluding Utilities	
Kenya ¹	21	1.5	289	-2.3	-1.6	
Rwanda	16	3.4	200	-0.6	-0.6	
Tanzania	26	0.3	60	-0.4	0.4	
Uganda ²	29			0.1	1.7	
Burundi ³	16			0.4	0.3	
Sources: C	ountry authoriti	es.				
¹ Commer	cial parastatals	i				
² For Ugar	nda, financial p	osition is 2010/2011.				

Oversight

Although rules for effective oversight are in place, the practical implementation of financial reporting in EAC partner states needs to be improved, as the lack of an effective system for monitoring and oversight can entail significant fiscal risks. Too few annual reports of public enterprises are publicly available. Reporting to national parliaments of sector-wide financial performance and operational developments is limited. Availability of timely information to ministries of finance also seems to be hampered by delays and data weaknesses in several countries. All of the EAC countries received Public Expenditure and Financial Accountability (PEFA) scores in the area of monitoring public enterprises that are about or below the global average (Figure 2.1). Box 2.2 summarizes the state of play in this area for individual countries.

Figure 2.1. EAC Country PEFA Scores on Financial Controls on Public Enterprises						
Global						
average	Burundi	Kenya	Rwanda	Tanzania	Uganda	
С	D	С	С	NR	С	
	Global average	Global average Burundi C D	Global average Burundi Kenya C D C	Global average Burundi Kenya Rwanda C D C C	Global average Burundi Kenya C D C C	

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Box 2.2. Oversight of Public Enterprises—Framework and Implementation in Individual EAC Partner States

Burundi. A 1998 decree states that all public enterprises must report on all of their activities to the Service Chargé des Entreprises Publiques; the Audit Court (Cour des Comptes) is authorized to audit the public enterprises. However, implementation of the regulatory framework has lapsed, and the World Bank is providing assistance to revamp it.

Kenya. The Department of Government Investment and Public Enterprises oversees public enterprises, but such monitoring could be enhanced. Since 2005 management performance contracts have been set with the parent ministry, and the Permanent Secretary of the Ministry is a member of the managing board. The Public Audit Act 2003 states that public enterprises must submit their financial accounts to the parent ministry and to the Ministry of Finance within three months of the end of the year, though information on compliance is limited. A recent effort has outlined clear reform plans for the government-owned entities (GOEs). Proposals include reducing the number of GOEs by 28 percent and grouping the remaining ones into five components: commercial state corporations with strategic functions, commercial state corporations without strategic functions, executive agencies, independent regulatory agencies, and research institutions. The shareholding role for commercial entities will be exercised by the treasury through a holding company called the Government Investment Corporation (GIC). The size of the boards of directors of the GOEs will be restricted to seven to nine members, and they will be vested with the authority to appoint the chief executive and top management. A revamped performance management framework will be set up and anchored in the overarching new law. The GIC will monitor performance of the public enterprises.

Rwanda. Public enterprises are monitored by the Government Portfolio Monitoring Unit. Their accounts are audited by external auditors, and the audits are normally presented to parliament within 10 months of the end of the accounting period. In practice, the audited reports are not comprehensive because of unavailability of data from some of the public enterprises. For example, the auditor general was not able to sign off on the annual financial report for Energy, Water and Sanitation Authority (EWSA), the electricity and water company, because the report was incomplete and not supported by underlying accounting records.

Tanzania. Each individual public enterprise is accountable to a board of directors, with oversight carried out by the parent ministry. The water and electricity utilities are regulated by an independent regulator. The Treasury Registrar (TR) has an overarching role in monitoring public enterprises (as well as numerous extrabudgetary agencies). TR prepares an annual report to parliament that includes the list of public enterprises and other government agencies, information on government equity holdings, government loans and guarantees, transfers from the central government, loan repayments and arrears, and dividend and other payments to the budget. TR also compiles summary information on the financial performance of public enterprises and extrabudgetary agencies, which was first published in November 2014.

Uganda. Most public enterprises are monitored by the Parastatal Monitoring Unit. Public enterprises must submit their financial accounts to the parent ministry and to the auditor general within three months of the end of the year. The accounts are generally audited with delays, in part because of workload issues.

B. Large Infrastructure Projects

Consistent with the need to bridge the infrastructure gap and foster economic growth, all EAC partner states envisage a significant scaling-up of infrastructure investment, including several large-scale projects mostly in energy and transportation. The combined value of all projects under consideration (to be implemented over the next few years) is in excess of US\$90 billion, or about 70 percent of the combined GDP of the EAC countries in 2014.¹² This is, of course, a rough estimate; these projects are at different planning stages, and some may well not come to fruition, owing to such factors as lack of financing or operational challenges. Nevertheless, the sheer scale of the projects suggests that the fiscal implications are potentially major.

Some of the key projects in the pipeline are regional projects, undertaken in a coordinated way by some EAC countries. The main current ones include (1) the construction of the standard gauge railway (with about 2,900 kilometers expected to link Mombasa, Nairobi, Kampala, and Kigali, and be operational by December 2018, with an eventual extension to Juba in South Sudan), and (2) oil-related infrastructure, including a refinery in Uganda and a crude oil pipeline—to link the refinery in Hoima with the Kenyan coast—and a refined products pipeline—linking Mombasa, Nairobi, and Eldoret in Kenya with Uganda and, eventually, Rwanda.¹³

The magnitude of the envisaged investment varies considerably across countries (Figure 2.2). The time frame for individual projects also varies significantly, with some projects having started in the late 2000s and with completion dates ranging from 2014 to beyond 2020. Similarly, while some projects' financing has been finalized, others' funds are still being negotiated or planned, with most countries planning to have recourse to nonconcessional borrowing. Box 2.3 describes the major projects in the pipeline, derived from information available to IMF staff in the context of discussions with the authorities.

While these investment projects have the potential to address growth bottlenecks, they also carry fiscal risks whose extent depends on a range of factors. If the obligations stemming from a project listed in Box 2.3 are already included in the authorities' fiscal framework (for example, the budget, the medium-term expenditure framework, and the DSAs), then fiscal risks would only be associated with cost overruns, delays in the finalization of construction, or the realization of contingencies that had not been included in the baseline. If some projects have not yet been included in the fiscal framework—as seems to be the case for a number of them—

¹² The third EAC Heads of State Retreat on Infrastructure Development and Financing, held in November 2014, evaluated the required financing to about US\$100 billion, a number broadly consistent with staff's estimate. In the same retreat, heads of state endorsed a 10-year investment strategy for priority regional projects and directed the council to mobilize resources to finance it.

¹³ Financing for some of these projects is being raised with the EAC infrastructure levy, a 1.5-percent levy introduced from FY2014/15 (Tanzania is expected to introduce it in FY2015/16) on the customs value of goods imported into the EAC.

their large scale has the potential to significantly add to the fiscal deficits and debt burden, unless savings are made elsewhere in future budgets or these projects are financed by the private sector. Other economic issues could arise, such as the risk of overheating or running into absorption-capacity constraints.



C. Public-Private Partnerships

Given the fiscal constraints in most countries in the region, PPPs¹⁴ have received increasing attention in discussions on potential financing modalities. EAC partner states are taking active steps to improve their PPP frameworks, including their specific PPP legislation (Box 2.4 and Figure 2.3).

Although PPPs can increase efficiency, they also lead to fiscal risks for two broad sets of reasons. The first is that PPPs allow for deferred spending compared with public investment projects undertaken through standard public procurement, as the expenditures implied by PPPs tend to be recorded later—often at project completion rather than as the investment is carried out. The second relates to fiscal risks in their stricter sense of unexpected expenditures. Indeed, the PPP contract signed by the government (or the state-owned entity with the service provider/investment company) is usually difficult to design and implement, and includes several

¹⁴ PPPs refer to long-term contracts whereby the private sector provides a public asset or service that traditionally has been provided by the government, bearing significant risk and management responsibility (IMF 2004; World Bank 2014a).

elements whose ultimate costs are uncertain, including: (1) the cost of the project in terms of the loans' amortization; (2) interest payments; (3) the equity return for the investors; (4) operational costs and maintenance of the plants, including insurance; and (5) guarantees provided by the government. The main risks emanate from delays in construction, litigation, and increases in financing costs. Moreover, the assumptions regarding some projects are often optimistic and can result in guarantees being called on the government by the service provider. Additionally, some of the state-owned entities may be ill-equipped to manage such large projects or meet their PPP contract obligations. This may, in turn, result in a materialization of contingent liabilities for the government.



Box 2.3: Infrastructure Projects under Preparation in the EAC

Burundi. Current national and regional pipeline of hydropower projects for which financing has been identified (US\$270 million, five-year horizon) would add an additional 67 megawatts, helping Burundi triple hydroelectric production capacity from its 2012 base. Most of these projects would be financed through concessional lending and, to a lesser extent, budget resources.

Kenya. Kenya plans to implement projects worth about US\$47 billion over 2014–17. The projects cover several sectors, including energy, ports, roads, railways, Information and Communication Technology (ICT), oil pipelines, and refineries. These would be funded through various sources, including PPPs and annuities. The current fiscal framework includes phase one of the Kenyan segment of the Standard Gauge Railway project (Mombasa to Nairobi, US\$3.8 billion plus insurance, over 40 months), that started at the end of 2014 and is funded by a semiconcessional loan from China's Exim Bank; roads projects, which are expected to amount to about US\$3 billion, financed by annuities; airport terminals, about US\$1 billion, financed by development partners; and the government's share of large energy projects. Other big projects not yet in the fiscal framework include the transport corridor to South Sudan and Ethiopia, which is expected to cost about US\$5 billion, to be financed through PPPs.

Rwanda. There is currently a pipeline of 24 projects (extending to 2019) shared almost equally between the energy and transport sectors (US\$1.2 billion each). Investment in water is expected to be about US\$0.3 billion. Together, these projects represent about 34 percent of the 2014 GDP. The government currently has US\$880 million budgeted over the next few years for these projects, with the remainder of the financing expected to come from a mix of concessional and nonconcessional borrowing as well as grants. Additionally, financing and implementation of the new airport (US\$750 million) and Rwanda's share of the regional railway (US\$1.5 billion) are still being discussed. These two projects represent a further 28 percent of Rwanda's 2014 GDP.

Tanzania. A new US\$1.2 billion pipeline is being constructed to deliver cheap natural gas from domestic fields in the south to Dar Es Salaam (already fully reflected in the DSA published by the authorities and in the latest IMF staff reports). The project, to be completed shortly, is financed by China Exim Bank (mix of concessional and nonconcessional lending), with a 5-percent contribution from the government. Additionally, two power plants in Kinyerezi are being constructed at a combined cost of US\$474 million, and an additional US\$480 million is envisaged for increasing generation capacity next year. Nonconcessional borrowing is also being used for road projects (US\$104 million) and the construction of a new airport terminal (US\$164 million). In addition, there are several projects identified under the Big Results Now initiative (total US\$13 billion) and a potential large port development project in Bagamoyo (US\$10 billion) for which detailed plans are not yet available.

Uganda. The country has a pipeline of at least US\$9.2 billion (35 percent of GDP) of national and regional projects, including roads, hydropower plants, railway, pipelines, and a refinery, with financing schemes that include PPPs, foreign direct investment, concessional and nonconcessional loans, and budget financing. Two large hydropower projects are being implemented, with financing about to be concluded with China's Exim Bank loans and 15 percent of government savings. Financing is also identified for oil-related road construction. Other large projects in the pipeline for which financing is under discussion include phase one of the Ugandan segment of the standard gauge railway, highways, and a new large hydropower plant (Ayago).

Box 2.4. PPP Frameworks in the Region¹

In **Burundi**, an explicit PPP framework has not been established, with PPP issues being dealt with by the second vice president and the Public-Private Dialogue Secretariat.

In **Kenya**, the PPP law was passed in December 2012, with a PPP Committee formed with principal secretaries from relevant departments and experts, and the support of a PPP unit in the ministry of finance. Kenya has reached financial closure on 22 PPPs with more than \$4 billion committed investments.

In **Rwanda**, a draft PPP law is about to be submitted to parliament. An interministerial PPP steering committee will lead and approve projects, assisted by a PPP unit in the Rwanda Development Board. PPPs are currently present in the power and telecom sectors.

In **Tanzania**, a PPP act was passed in 2010 and the Public Procurement Act amended in 2011 to reflect the new legislation. An implementation strategy and action plan and operational guidelines have also been developed. So far, US\$3.4 billion have been committed to 21 PPPs that include eight power-related PPPs.

Uganda's PPP bill was passed in July 2014. The PPP unit, in the Ministry of Finance, supports and advises on PPP issues. Twenty-two projects have reached financial closure, with investment totaling US\$3.5 billion and power being the largest sector.

¹ This box's information is borrowed from the World Bank (2014b).

A number of preconditions must be met for effective management of fiscal risks. Firstly, project selection and appraisal need to be strong in order to ensure that only good projects get implemented. Secondly, a sound institutional, legal, and regulatory framework is necessary for a proper assessment of risks. Finally, a good budgeting, accounting, and reporting system must be in place to ensure full and transparent disclosure of risks.

D. Pensions

Public pension spending varies significantly across EAC countries (Table 2.2). This largely reflects differences in the coverage of the pension systems and their generosity. Only Kenya has a universal pension payment for the elderly older than age 65. In other EAC countries, pension payments by the government are mostly directed to retired civil servants and cover old age and disability. Most government schemes are operated on a defined benefit basis. The systems in Burundi, Rwanda, and Tanzania include an element of contribution from both the employee and the government. The ones in Kenya and Uganda are noncontributory, thus representing a bigger strain on government finances. The architecture of the public pension system varies across the EAC countries (Box 2.5). All of the EAC countries also have privately managed pension funds and other voluntary schemes.

		(percent of G	DP)	
	2010–11	2011–12	2012–13	2013–14
Burundi	0.28	0.35	0.34	0.36
Kenya	0.46	0.54	0.55	0.60
Rwanda	0.22	0.23	0.23	0.25
Tanzania	0.19	0.20	0.17	0.15
Uganda	0.58	0.51	0.52	0.41

Box 2.5: Pension Arrangements in the EAC

- **Burundi**'s pension system has a mandatory component for government employees (Office National des Pensions et Risques Professionnels) and another component that covers employees in the formal sector (Institut National de Sécurité Sociale).
- **Kenya**'s system includes a quasi-universal social pension scheme, which covers people older than age 65 who are very poor; a civil service scheme; and another scheme that covers all formal-sector workers (National Social Security Fund).
- **Rwanda**'s public pension system is focused around one fund (Rwanda Social Security Board), which also administers a health care insurance.
- **Tanzania**'s mandatory public pension schemes are focused around five funds (with the main ones being the National Social Security Fund, the Public Service Pension Fund, and the Governmental Employees Provident Fund).
- **Uganda**'s covers the public service and other occupation pension schemes under one fund (National Social Security Fund).

Public pension plans will represent an increasing strain on government finances. Pension spending is indeed bound to grow because of such demographic developments as an increase in the number of retirees and improvements in life expectancy, resulting in pensioners having longer retirement. These trends will directly affect the budget in the case of noncontributory schemes, but they could also indirectly affect the budget in contributory schemes if the contribution rates or benefits are not adjusted.

A broader issue is the potential impact of low coverage in a context of increasing life expectancy. The demand for pension coverage was low when life expectancy was low; however, as life expectancy improves, one can expect an increase in such demand, particularly for an oldage scheme where not available (all countries but Kenya), with possible fiscal implications. Another risk is lower-than-expected returns on pension fund assets. Most of the current portfolios are invested domestically, mostly in government bonds. There is also generally limited investment expertise within the pension schemes. As a result, most of the schemes have experienced low investment returns over the years. There have also been cases of mismanagement, which have impacted negatively the long-term financial health of some schemes.

Institutional Sources of Fiscal Risks

This section considers risks that arise from weaknesses in institutional frameworks. Specifically, weaknesses in budget and financial management processes can often be a significant source of fiscal risk. Examples include the lack of strong in-year expenditure control processes or systematically optimistic revenue forecasts, which can lead to higher expenditures or lower revenues than expected in the budget.¹⁵ Institutional weaknesses can also amplify the impact of other risks when they materialize. For example, insufficient understanding or oversight of a public enterprise could lead the government to bear greater-than-expected fiscal costs if the enterprise runs into financial difficulties. This section highlights five areas of institutional weaknesses leading to fiscal risks in EAC partner states: (1) quality, timeliness, and coverage of reported fiscal data; (2) expenditure allocation and control; (3) oversight of subnational governments; (4) revenue forecasting and administration; and (5) risks related to natural resource wealth management.

A. Quality, Timeliness, and Coverage of Reported Fiscal Data

When financial data quality is low, governments risk making inappropriate fiscal decisions. A related problem is that timely data coverage is often restricted to central government, with little available data on the wider public sector, such as subnational government and state-owned enterprises (see Chapter 2.A on the latter). This creates the risk that fiscal pressures can develop in these sectors without the knowledge of policymakers, which limits their ability to address them early.

Figure 3.1 presents the results of an analysis of data and reporting practices in each EAC country, undertaken by IMF staff in 2013. Current practices are then compared with benchmarks and classified in three color-coded categories: green representing that the benchmark is met, red indicating significant weaknesses, and yellow in between. This analysis points to risks related to both data quality and coverage in EAC countries, in particular the following:

¹⁵ In addition, they may require in-year reductions and changes to expenditure plans that are inefficient and likely to undermine fiscal credibility.

- None of the EAC countries meet the benchmarks related to independent production and audit of financial data.
- In none of the countries are financial data produced by an independent statistics agency; only in Tanzania are data audited to international standards by an independent auditor.
- Only in Rwanda are data presented on a general government basis in the budget.

	Torget Prostice					
	Burundi	Kenya	Rwanda	Tanzania	Uganda	for EAC
Coverage of Institutions	Central Government	Budgetary Central Government	General Government	Budgetary Central Government	Central Government	General Government
Coverage of Flows	Cash plus Arrears	Cash	Cash plus Arrears	Cash	Cash plus Arrears	Cash plus Payables & Receivables
Coverage of Stocks	Liabilities only	Liabilities only	Liabilities only	Liabilities only	Liabilities only	Financial Assets and Liabilities
Frequency of In-Year Reporting	Quarterly Within One Month	Monthly Within One Month	Quarterly Within One Month	Quarterly Within One Month	Quarterly Within One Month	Quarterly Within One Month
Timeliness of Annual Accounts	14 Months	10 Months	Over 9 Months	9 Months	9 Months	9 Months
Classification	GFSM 1986	GFSM 2001	GFSM 2001	GFS 1986 No Functional	GFSM 2001	GFSM 2001 (Economic & Functional)
Internal Consistency	Flows	Stocks, Flows, and Stock-Flow	Stocks	Stocks	Stocks, Flows, and Stock-Flow	Reconciliation of Stocks, Flows, and Stock-Flow
Historical Consistency	Past Balances Not Fully Reconciled	No Outstanding Issues	Past Balances Settled	No Outstanding Issues	Revisions Reconciled with Delay	Material Revisions Fully Reconciled on Timely Basis
Statistics Agency	Ministry of Finance	Semi-Autonomous Agency	Semi-Autonomous Agency	Semi- Autonomous Agency	Semi-Autonomous Agency	Independent Agency
External Audit	Weak Court of Account	Independent Auditor Local Standards	Independent Auditor Local Standards	Independent Auditor IPSAS	Independent Auditor Local Standards	Independent Audit Agains International Standards (IPSAS)

B. Expenditure Allocation and Control

If expenditure is greater than that envisaged by the budget, then—other things equal—the deficit will be higher than forecast. This may occur because of unforeseen external events—for example, a natural disaster that creates additional demand for public expenditure compared with budget allocations. However, expenditure overruns may also stem simply from weak internal controls.

Figure 3.2 shows the average difference between medium-term expenditure forecasts and outturns in Kenya, Uganda, and Tanzania over the 2000–12 period, with South Africa also presented for comparison (a comparative data set for Rwanda and Burundi is not available). This shows that both the current year and the medium-term expenditure projections have not provided a strong guide to outturns in these countries. Actual expenditure exceeded the one-year and two-year ahead forecasts over this period by a significant degree, particularly in Tanzania.¹⁶ This increases the risk that deficits will be higher than forecast and also makes it difficult for agencies to plan higher-than-expected levels of public expenditure, increasing the likelihood of wasting resources on inefficient expenditure or allocating it to nonpriority areas—thereby reducing efficiency and effectiveness. By contrast, the budget-year estimates of expenditure in these countries have, on average, been higher than outturns, in particular in Uganda and Tanzania. This outcome suggests that in-year expenditure plans are not realistic and that budget execution is weak. By comparison, in South Africa the initial budget estimate is, on average, a good guide to actual expenditure.



PEFA assessments provide useful indications of areas of institutional weaknesses across countries.¹⁷ Figure 3.3 shows the results from each EAC country's most recent PEFA assessment of the items related to expenditure control. For comparison, this is shown alongside the average

¹⁶ In South Africa, in response to this problem, the government introduced a binding medium-term expenditure ceiling in 2012. Since then, outcomes have been at or below initial estimates. This illustrates that well-designed reforms can be successful in addressing institutional risks.

¹⁷ The PEFA program is a multidonor partnership that assesses the condition of a country's public expenditure, procurement, and financial accountability systems, and develops a practical sequence for reform and capacity-building actions. PEFA assessments were most recently undertaken in 2012 in Burundi, Kenya, and Uganda, and in 2010 in Rwanda and Tanzania. The assessments cover a range of public financial management (PFM) indicators, and in each country each indicator is assessed against a four-point scale from A to D.

worldwide PEFA country score for each item. This figure shows that Uganda and Burundi have particularly low assessments against most areas of institutional expenditure control.

Figure 3.3. EAC Country PEFA Scores on Expenditure Control								
PEFA Indicators related to expenditure control	Global average	Burundi	Kenya	Rwanda	Tanzania	Uganda		
Composition of expenditure outturn compared to original approved budget	C+	C+	C+	D	D	D+		
Stock and monitoring of expenditure payment arrears	C+	D+	C+	В	С	C+		
Effectiveness of payroll controls	C+	D+	B+	B+	NR	D+		
Effectiveness of internal controls for non-salary expenditure	с	D+	С	B+	C+	С		

Weak expenditure controls can also lead to the buildup of arrears, which occurs if expenditures are incurred but there is no available financing from revenues or from borrowing. Figure 3.4 illustrates a significant problem of arrears in Burundi and Tanzania, based on available data from 2010–11.



C. Oversight of Local Governments—Devolution

Fiscal devolution—whereby subnational authorities are given the authority to raise revenue, spend, and borrow—is significant in a number of EAC countries; it is expected to increase substantially in Kenya (Box 3.1). In principle, devolution helps better reflect the preferences of the citizens in the decision-making process and thus allows public spending to better address needs. Devolution may also increase flexibility in policymaking. For these reasons, devolution is

expected to increase the efficiency and effectiveness of government expenditure, including on social services, and to enhance social cohesion and accountability.

In Kenya, Rwanda, and Uganda, local governments execute about 17 percent of general government expenditure on a releases basis; in Tanzania this share exceeds 20 percent (Figure 3.5).



The decentralization process is complex and poses a number of challenges. It is therefore essential to ensure that it is properly sequenced and implemented, with due attention to institutional arrangements to limit fiscal risks. To be successful, the process requires all levels of government to be effectively committed to fiscal discipline in order to avoid the "common pool" problem—whereby incentives to control local spending are diminished because resources are raised nationally—and moral hazard—the perception that the central government will bail out the local administrations in trouble—as these problems might lead to overspending and overborrowing. Another risk is the duplication of functions.

International experience has shown that there are different approaches to controlling these risks. Sound institutions and procedures should ensure sufficient coordination and consultation, clarity of roles and responsibilities, adequate accounting and reporting, monitoring, auditing, and strong accountability arrangements. To prevent overborrowing, borrowing limits can be set through negotiated agreements, national legislation, or administrative controls. Other ways to help control these risks include: establishing an adequate framework for subnational borrowing to limit indebtedness, moving toward a unified treasury single account, and involving local

governments in the scope of the PFM legal and regulatory framework, including the expansion of the fiscal reports to cover all of the public sector.

Box 3.1. Decentralization in the EAC

Burundi: The decentralization process is in the early stages; the principle was introduced in the 2005 constitution, and a National Decentralization Policy was adopted in 2009. However, the current 129 towns ("communes," in 17 provinces) do not receive transfers from the general budget and thus are financed through local taxation and donor support.¹

Kenya: The 2010 constitution established that a minimum of 15 percent of central government domestic revenues (based on the latest audited accounts) should be transferred to the newly created 47 county governments from the budget, with poverty considerations playing an important role in allocations across counties. Counties also rely on their local revenues, which consist mainly of property taxes and single business permit fees. Following the March 2013 general elections, devolution was rolled out during FY2013/14 at a fast-track pace, increasing the role of counties, starting with health spending. Discussions are currently underway to devolve other sectors eventually, such as education. Subnational expenditures increased from about 1 percent of GDP in 2012–13 to about 4.5 percent of GDP in 2013–14, covered almost exclusively by an increase in central government transfers.

Rwanda: Rwanda has implemented gradually its decentralization policy, established in 2000, through successive five-year phases. Since 2001, basic services in education, health, agricultural support, local roads, and cash transfers have been devolved. The 30 districts levy taxes and fees (which represent, on average, about 16 percent of total revenue), and get most of their resources from the central government through three different types of grants: an unconditional block grant, purpose-specific earmarked grants, and grants for specified projects. The grants increased to about 5 percent of GDP in 2013, roughly a third of the central government's domestic revenues. The central government sets district tax rates, and since March 2014 the collection of revenues to finance local government expenditures has been switched to the central level to improve collection efficiency.

Tanzania: Local authorities are responsible for primary education, health, agricultural extension, rural water supplies, local roads, and public infrastructure. They receive resources through intergovernmental fiscal transfers, and they also have own resources (local government-owned revenues are about 0.5 percent of GDP). The budgetary allocations to local government authorities in FY2013/14 amounted to 21 percent of total expenditure, and the local governments' own resources amounted to about 2 percent of total expenditure on a cash release basis.

Uganda: With 12 districts, local governments deliver key services like primary and secondary education, public health, agricultural extension, roads, water, and sanitation. Local governments are funded through intergovernmental fiscal transfers (mostly conditional grants transferred by the sector line ministries to local government, but also unconditional grants and equalization grants, for the least developed districts). In the 2013/14 budget, local governments received about 3 percent of GDP in transfers from the central government (grants). Local governments can also raise their own revenues and fees, and borrow within the limitations established in the Local Government Act.

¹ According to Burundi's 2011 Burundi: Poverty Reduction Strategy Paper—Progress Report and Gaynor (2011).

D. Revenue Forecasting and Administration

As noted earlier, an important source of fiscal risks relates to the possibility that government revenues will fall short of forecasts if underlying economic activity turns out to be weaker than expected. In some circumstances, weak revenue administration can also represent a related institutional source of fiscal risks, implying that revenues collected turn out to be a lower-than-expected proportion of the available tax base. In many circumstances, weaknesses in revenue administration are well known when the forecasts are made; however, these weaknesses can become a significant source of risk when a new tax or other reform is introduced to the existing tax regime. In some instances, there is also a systematic bias toward basing the budget on overly optimistic assumptions, which can be seen as another institutional source of fiscal risks.

Regarding revenue administration more specifically, Figure 3.6 shows the results from each EAC country's most recent PEFA assessment, compared with the full set of PEFA scores. This shows that Kenya and Rwanda had particularly low assessments in the effectiveness of tax payments collection, whereas Tanzania received low scores on the effectiveness of taxpayer registration and assessment.

Figure 3.6. EAC Country PEFA Scores on Revenue Administration								
	Global							
PEFA indicators related to revenue administration	average	Burundi	Kenya	Rwanda	Tanzania	Uganda		
Effectiveness of measures for taxpayer registration and tax assessment	С	С	В	A	C+	В		
Effectiveness in collection of tax navments	C+	B+	D+	D+	NR	C+		

E. Risks Related to Natural Resource Wealth Management

Some EAC countries have recently made natural resource discoveries, mostly oil and gas (Box 3.2). The revenues associated with these natural resources, if they materialize, could be transformational for the concerned economies. Given that these potential revenues are not included in fiscal framework, they clearly constitute positive fiscal risks.

Box 3.2. Natural Resource Discoveries in the EAC Region

According to information from the U.S. Energy Information Administration—which uses, among other sources, companies' annual reports—recent discoveries include the following:

- **Kenya:** Tullow is leading exploration activities in Kenya's South Lokichar basin. Preliminary estimates of reserves are well over 600 million barrels of oil, according to Tullow's 2013 annual report. The company estimates that Kenya's South Lokichar basin has the potential to produce more than 100,000 barrels per day (bbl/d) of oil, but development studies are still under way.
- **Uganda:** Oil reserves are estimated at 6.5 billion barrels. According to Tullow's 2013 Annual Report, the three leading companies in exploration and development (Tullow, Total, and the China National Offshore Oil Corporation) are targeting gross oil production of more than 200,000 bbl/d.
- **Tanzania:** Several offshore natural gas discoveries have been made since 2010. Exploration results indicate that discoveries total 25 to 30 trillion cubic feet of recoverable deep offshore gas resources, according to PFC Energy.

However, natural resources are also a source of macroeconomic and fiscal risks, and need to be properly managed even before production starts to ensure fiscal sustainability. For example, the fiscal position could deteriorate if borrowing increases are based on expectations for natural resource revenues and those revenues do not materialize. Given the large fluctuations in their prices, natural resources introduce a significant source of volatility in revenues once production starts, and that volatility can lead to boom-and-bust cycles. Furthermore, natural resources are exhaustible, and there are important trade-offs as to how much should be spent now or saved for future generations. Risks also include Dutch disease or potential diversion of resources.

These risks can be addressed by establishing a sound and transparent policy framework that constrains discretion and promotes fiscal discipline while isolating the budget from price volatility. These mechanisms need to work within a general context of sound public financial management. Institutions mechanisms could include medium-term fiscal rules, resource funds, and fiscal responsibility laws.¹⁸

In addition to creating challenges for macroeconomic management, the arrival of significant natural resource revenues will also test the institutional budget framework. In particular:

¹⁸ In Uganda, the 2015 Public Financial Management Act requires the minister to submit to parliament, no later than three months after the first sitting of parliament after a general election, a charter for fiscal responsibility that relates to the formulation and implementation of fiscal policy. The ministry is to draft a charter for FY2016/17–FY2020/21.

- The volume of additional revenues can erode aggregate budget discipline without a strong medium-term expenditure framework and enforceable prohibitions on expenditure in excess of appropriated amounts.
- The volatility of that revenue poses a problem of ensuring that the related expenditure is planned and spent efficiently and productively.
- The many different streams of revenue create challenges around ensuring that resources are all spent in line with the government's strategic objectives, with approval and oversight from parliament.

A first step in preparing for these challenges is to ensure that a robust medium-term budget framework is in place before any revenues arrive. This reinforces the importance of reforms that aim to strengthen budget implementation, execution, and reporting. The volatility and uncertainty associated with natural resource revenues also underscores the need to develop a medium-term approach to budgeting, with forward expenditure ceilings linked to the medium-term fiscal policy objectives.

A second step would be to prepare the framework specifically to deal with significant new revenue flows; a key principle should be that the flows are fully integrated into the budget. This will ensure the integrity of resource revenue flows and protect the budget's role as the mechanism for setting expenditure priorities and allocating public resources. All spending from resource revenues should be subject to the same scrutiny and accountability, including parliamentary oversight, as any other public spending. The use of revenues should be governed by a well-designed macro-fiscal framework based on a set of long-term fiscal policy principles. For example, such principles could emphasize the primary aim of using resource revenues for the development of the economy, while maintaining fiscal sustainability.¹⁹ In addition, they could stress the need for fiscal policy to protect against volatility and to effectively guide the choice between consumption, investment, and saving of resource revenues

¹⁹ In Uganda, the 2015 Public Financial Management Act stipulates that petroleum revenue shall be used for financing infrastructure and government development projects, and not for recurrent expenditures.

Conclusions

Enhanced monitoring and management of fiscal risks would bring considerable benefits to all EAC partner countries—both individually and to the region as a whole—by reducing the scope for international spillovers in the event of a crisis. Although the baseline trajectory of public debt remains sustainable in all countries, significant fiscal risks are not sufficiently captured in the current headline central government deficit and debt data.

Some fiscal risks stem from possible macroeconomic shocks, such as a halt in the strong economic growth performance experienced during the past decade. Other notable sources of risk relate to the financial performance of public enterprises, large-scale infrastructure projects, PPPs, and pension funds. Moreover, there is a need to improve the quality and timeliness of information on the fiscal accounts for both the central government and other public-sector entities. In particular, more timely compilation and disclosure of improved information on the public enterprises' profit and loss accounts would be warranted. There is also a need to improve revenue forecasting and expenditure control; to strengthen the supervision of the public sector (including local governments and public enterprises, but also other public entities); and to prepare for the challenges raised by natural resource wealth management.

This paper sketches out steps that could be taken in a few areas to address some of these risks, but these recommendations are far from comprehensive and deserve a separate paper. To ensure that fiscal risks are kept in check, a critical first step is to report them in a transparent manner in public documents that accompany the budget—for example, in a statement of fiscal risks. It is also desirable that fiscal risks are taken into consideration by the regional institutions that will be tasked with monitoring and enforcing EAMU criteria. More generally, international experience suggests that fiscal criteria and rules enforced by regional institutions seem to have more "bite" in the run-up to monetary union than they do once the monetary union is in place; at that stage, they need to be supported through national enforcement. Thus, it would be desirable to support the monitoring and enforcement of commitments under EAMU by enshrining the same commitments in national legislation, including national constitutions.

For its part, the IMF stands ready to continue its support of partner countries and the EAC Secretariat. The IMF could also enhance its support of EAC efforts to establish the means to survey and enforce commitments for entry into and, later, participation in, EAMU. Such support in the period ahead will continue through technical assistance, fiscal transparency evaluations of all partner countries, and policy dialogue with country authorities.

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Appendix I: Descriptive Statistics for Key EAC Macroeconomic Data

Appendix Tables 1.1 and 1.2 report the assumptions for the volatility (standard deviation) and correlations of the key macroeconomic variables—growth, interest rates, exchange rate—used to produce the fan charts presented in Chapter 1. These are estimated using pooled quarterly data for 1993–2013 for the EAC countries (subject to data availability).

Appendix Table	1.1. Standard Deviation of Key Va (quarterly rates, 1993–201	riables Used .3)	d in Simulations
	Real GDP growth	2.0	
	Domestic real interest	3.0	
	Foreign real interest	0.5	
	Real exchange depreciation	4.6	
Sources: EAC authorities; a Note: Historical data for Bu	nd IMF staff projections. Jurundi and Rwanda start in 2003 and 2002,	respectively.	

Appendix Table 1.2. Co (qu	rrelations arterly dat	among Key Di a, 1993–2013)	vivers of Deb	ot in EAC
	Real GDP	Domestic real	Foreign real	Real exchange rate
	growth	interest	interest	depreciation
		(i	n percent)	
Real GDP growth	100			
Domestic real interest	3	100		
Foreign real interest	3	22	100	
Real exchange rate depreciation	-13	7	2	100

Sources: EAC authorities; and IMF staff estimates.

Note: Historical data for Burundi and Rwanda start in 2003 and 2002, respectively.

Appendix Figure 2.1. Debt Profiles in EAC Countries under DSA Assumptions Burundi Kenya 70% 70% 60% 60% 50% 50% 40% 40% 30% 30% 20% 20% 10% 10% 0% 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Rwanda Tanzania 70% 70% 60% 60% 50% 50% 40% 40% 30% 309 20% 20% 10% 10% 0% 0% 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Uganda 70% 60% 50% 40% 30% 20% 10% 0% -10% 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Sources: EAC authorities; and IMF staff estimates. Note: The light cone in the center is the 20-percent standard error interval around the median projection, and the overall cone marks the 99-percent confidence interval. The solid dark blue line shows the staff's baseline projection, and the solid red line denotes the EAMU ceiling on gross debt-to-GDP ratio in PV terms.

Appendix II: Debt Profiles in EAC Countries under DSA Assumptions